

Listing of Claims:

1. (Previously Presented) A method comprising:

receiving, at a Serving-Call State Control Function (S-CSCF), a registration request from a subscriber in a mobile network, wherein the registration request comprises a Transport Address (TA) of the subscriber;

providing the TA and an address of the S-CSCF to a Home Subscription Server (HSS) for storage at the HSS; and

receiving the TA from the HSS in response to a loss of the TA by the S-CSCF such that the TA is restored at the S-CSCF.
2. (Canceled)
3. (Previously Presented) The method of claim 1, wherein the TA is stored in a non-volatile memory of the HSS.
4. (Previously Presented) The method of claim 3, wherein the non-volatile memory comprises a hard disk drive.
5. (Previously Presented) A method comprising:

receiving, at a Serving-Call State Control Function (S-CSCF), a registration request from a subscriber, wherein the registration request comprises a Transport Address (TA), and further wherein the TA comprises a Care of Address of the subscriber;

storing the TA in a non-volatile memory of the S-CSCF; and

restoring the TA to the S-CSCF from the non-volatile memory in response to a loss of the TA by the S-CSCF.
6. (Canceled)
7. (Previously Presented) The method of claim 5, wherein the non-volatile memory comprises a hard disk drive.

8. (Previously Presented) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to cause the machine to:

receive, at a Serving-Call State Control Function (S-CSCF), a registration request from a subscriber, wherein the registration request comprises a Transport Address (TA) of the subscriber;

forward the TA of the subscriber and an address of the S-CSCF from the S-CSCF to a Home Subscription Server (HSS) such that the TA and the address of the S-CSCF are stored at the HSS; and

receive, from the HSS, the TA at the S-CSCF in response to a loss of the TA by the S-CSCF.

9. (Canceled)

10. (Previously Presented) The program storage device of claim 8, wherein the TA and the address of the S-CSCF are stored in a non-volatile memory of the HSS.

11. (Previously Presented) The program storage device of claim 10, wherein the non-volatile memory comprises a hard disk drive.

12. (Previously Presented) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to cause the machine to:

receive, at a Serving-Call State Control Function (S-CSCF), a registration request from a subscriber, wherein the registration request comprises a Transport Address (TA) of the subscriber;

store the TA in a non-volatile memory at the S-CSCF; and

restore the TA to the S-CSCF from the non-volatile memory in response to a loss of the TA by the S-CSCF.

13. (Canceled)

14. (Previously Presented) The program storage device of claim 12, wherein the non-volatile memory comprises a hard disk drive.

15. (Withdrawn) A method comprising:

recovering location information of a subscriber in a mobile network;

upon a Serving-Call State Control Function (S-CSCF) receiving a call setup request for the subscriber from an Interrogating-Call State Control Function (I-CSCF), the S-CSCF forwards a route request to a User Mobility Server (UMS) and receives a home address of from the UMS;

forwarding the call setup request from the S-CSCF to a home agent at the home address of the subscriber;

forwarding the call setup request from the home agent to the subscriber; and

forwarding an address update from the subscriber to the S-CSCF.

16. (Withdrawn) The method of claim 15, wherein forwarding the request to the UMS comprises forwarding an indication to the UMS that the S-CSCF fails to have a Care Of Address of the subscriber.

17. (Withdrawn) The method of claim 15, wherein forwarding the call setup request from the home agent to the subscriber comprises forwarding the call setup request to a Care Of Address of the subscriber.

18. (Withdrawn) The method of claim 16, wherein forwarding the call setup request from the home agent to the subscriber comprises forwarding the call setup request to a Care Of Address of the subscriber.

19. (Withdrawn) A method comprising:
recovering location information of a subscriber in a mobile network;
upon an Interrogating-Call State Control Function (I-CSCF) receiving a call setup request for the subscriber, the I-CSCF forwards a route request to a User Mobility Server (UMS) and receives a home address of the subscriber from the UMS;
forwarding the call setup request from the I-CSCF to a home agent at the home address of the subscriber;
forwarding the call setup request from the home agent to the subscriber; and
forwarding an address update from the subscriber to the I-CSCF.

20. (Withdrawn) The method of claim 19, wherein forwarding the call setup request from the home agent to the subscriber comprises forwarding the call setup request to a Care Of Address of the subscriber.

21. (Withdrawn) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method of recovering location information of a subscriber and a mobile network, the method comprising:
upon an Serving-Call State Control Function (S-CSCF) receiving a call setup request for the subscriber from an Interrogating-Call State Control Function (I-CSCF), the S-CSCF forwards a route request to a User Mobility Server (UMS) and receives a home address of the subscriber from the UMS;

forwarding the call setup request from the S-CSCF to a home agent at the home address of the subscriber;

forwarding the call setup request from the home agent to the subscriber;

and forwarding an address update from the subscriber to the S-CSCF.

22. (Withdrawn) The program storage device of claim 21, wherein forwarding the request to the UMS comprises forwarding an indication to the UMS that the S-CSCF fails to have a Care Of Address of the subscriber.

23. (Withdrawn) The program storage device of claim 21, wherein forwarding the call setup request from the home agent to the subscriber comprises forwarding the call setup request to a Care Of Address of the subscriber.

24. (Withdrawn) The program storage device of claim 22, wherein forwarding the call setup request from the home agent to the subscriber comprises forwarding the call setup request to a Care Of Address of the subscriber.

25. (Withdrawn) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method of recovering location information of a subscriber in a mobile network, the method comprising:

upon an Interrogating-Call State Control Function (I-CSCF) receiving a call setup request for the subscriber, the I-CSCF forwards a route request to a User Mobility Server (UMS) and receives a home address of the subscriber from the UMS;

forwarding the call setup request from the I-CSCF to a home agent at the home address of the subscriber;

forwarding the call setup request from the home agent to the subscriber; and

forwarding an address update from the subscriber to the I-CSCF.

26. (Withdrawn) The program storage device of claim 25, wherein forwarding the request to the UMS comprises forwarding an indication to the UMS that the S-CSCF fails to have a Care Of Address of the subscriber.

27. (Withdrawn) The program storage device of claim 25, wherein forwarding the call setup request from the home agent to the subscriber comprises forwarding the call setup request to a Care Of Address of the subscriber.

28. (Withdrawn) The program storage device of claim 26, wherein forwarding the call setup request from the home agent to the subscriber comprises forwarding the call setup request to a Care Of Address of the subscriber.

29. (Previously Presented) A system comprising:
a first receiving unit configured to receive a registration request from a subscriber of a mobile network at a Serving-Call State Control Function (S-CSCF), wherein the registration request comprises a Transport Address (TA) of the subscriber;

a forwarding unit configured to forward the TA and an address of the S-CSCF from the S-CSCF to a Home Subscription Server (HSS) for storage; and

a second receiving unit configured to receive the TA from the HSS in response to a loss of the TA by the S-CSCF.

30. (Withdrawn) A system comprising:
a first forwarding unit configured to forward a route request, upon a Serving-Call State Control Function (S-CSCF) receiving a call setup request for a subscriber of a mobile network from an Interrogating-Call State Control Function (I-CSCF), from the S-CSCF to a User Mobility Server (UMS);

a receiving unit configured to receive a home address from the UMS;

a second forwarding unit configured to forward the call setup request from the S-CSCF to a home agent at the home address of the subscriber;

a third forwarding unit configured to forward the call setup request from the home agent to the subscriber; and

a fourth forwarding unit configured to forward an address update from the subscriber to the S-CSCF.

31. (Previously Presented) The method of Claim 1, wherein the TA of the subscriber comprises a current Care of Address of the subscriber.

32. (Previously Presented) The system of Claim 29, wherein the first receiving unit comprises the second receiving unit.